CHECKLIST ENVIRONMENTAL ASSESSMENT FOR APPLICATION 00176

July 31, 2008

COMPANY NAME: Bull Mountain Coal Mining, Inc. **Project:** Bull Mountains Mine No. 1

OPERATING PERMIT #: 93017

LOCATION: Township 6N, Range 26E, portions of Sections 12, 13, and 14 (affecting 725 surface acres, more or less)

Counties: Musselshell County

PROPERTY OWNERSHIP: [ ] Federal [ ] State [x] Private

TYPE AND PURPOSE OF ACTION:

Bull Mountain Coal Mining, Inc. (BMCM), formerly BMP Investments, Inc., has applied for a major revision to the Bull Mountains Mine No. 1. The proposed permit revision addresses expansion of the current facilities, including construction of a new coal processing plant, revised/expanded rail loop, and associated facilities, including minor changes to the waste disposal area (WDA). The new facilities would enable coal processing and loading to keep pace with the longwall mining production rate, thereby facilitating coal production. The expanded facilities area would affect approximately 375 acres. The WDA and associated ponds and stockpiles affect approximately 350 acres.

Reclamation Plan: All areas of disturbance would be reclaimed at the end of mine life. The only major change to the reclamation plan involves incorporating 1.5 million cubic yards of excess earth material into the post-mine topography (PMT). The material would be brought on-site to use as fill during construction of the rail loop, and would be extracted from areas of cut along the rail spur. The post-mine location of this material would be depicted on the PMT map. A stipulation requiring the operator to produce an acceptable PMT map would accompany the approval of Application 00176.

N = Not present or No Impact will occur.
Y = Impacts may occur (explain under Potential Impacts).

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:	[Y] The disturbance area would be expanded by approximately 30 acres. The additional area affected is similar to previously permitted disturbance areas. The disturbed areas are subject to all applicable regulations set forth in the Administrative Rules of Montana (ARM). Some of the soils that would be affected are reclaimed soils. These soils would be salvaged in a single lift and stockpiled for final reclamation. The remainder of the (previously undisturbed) soils affected by activities associated with Application 00176 would be salvaged in accordance with the existing mine plan. In all cases, soil would be salvaged and stockpiled for use in final reclamation.
2. WATER QUALITY, QUANTITY AND DISTRIBUTION:	[Y] Groundwater - Proposed changes that would affect groundwater include 1) completing two additional production wells in the aquifer(s) of the Madison Group, and 2) discontinuing the use of the mine's domestic wells that are completed in the underburden aquifer. Under the currently approved permit, underburden wells on the mine site are used for supplying the office and bathing facilities. The underburden aquifer is also used for domestic supply by residences adjacent to the mine. The application proposes using water from production wells completed in the Madison Group to supply all mine uses, including the bath house once the new facilities are built. This would lessen the likelihood of immediate and

long-term impacts to the underburden aquifer due to drawdown resulting from mine use of the aquifer.

Each proposed, additional Madison well (Madison wells #2 and #3) would be completed to an approximate depth of 8,600 feet. Each of these wells, in addition to the existing well (Madison Well #1), would be capable of supplying up to 350 gallons per minute (gpm). A maximum of 500 gpm would be pumped from the three wells and stored in the 5 million gallon Madison well pond. This is a lined pond located west of Madison well #1. Storage would include the necessary volume of water to ensure a steady mine supply and water capacity for emergency fire fighting.

The water level in Madison Well #1 is 185 feet below the ground surface, which indicates that the Madison aquifer has considerable confining pressure. As the nearest Madison well is located 17 miles from the mine, a single well pumping test was conducted (Hydrometrics, Inc., 2006). The pump test lasted 45 hours at a pumping rate of 358 gpm. Measured drawdown at the end of the test was 2,535 feet. Based on these values, the specific capacity of the well is approximately 0.14 gpm. Computer software used to project drawdown based on the data from the pump test predicted 4,000 feet of drawdown after two years of pumping associated with mine use and 4,700 feet after 20 years of pumping. Effects to a hypothetical well 1,000 feet from the pumping well suggested 18 feet of drawdown after two years and 340 feet of drawdown after 20 years. The use of three Madison production wells to collectively produce 500 gpm for mine use is not anticipated to cause impacts to other water users or significantly deplete the Madison aquifer.

Water quality analyses from the Madison Well #1 indicate that it is a sodium-sulfate type water with a high concentration of total dissolved solids (2,740 mg/L) and a neutral pH. Water temperature at the well head is 180 degrees Fahrenheit. Iron and fluoride concentrations (4.72 mg/L and 5.07 mg/L, respectively) exceed Montana water quality standards. No water from the Madison wells would be released to the surface. Water used for drinking and/or bathing at the mine site would be treated.

The addition of two wells in the Madison aquifer at the mine site would not affect local wells. All monitoring wells and domestic wells are completed in the Fort Union Formation. The base of the Fort Union is at a depth of approximately 1,600 feet. Shale, siltstone, sandstone and limestone compose the 6,145 feet of strata between the base of the Fort Union Formation and the top of the Madison Group. The multiple layers and thick sequences of shale serve as multiple confining layers and effectively block the vertical flow of groundwater.

[N] Surface Water - The approval of Application 00176 would primarily result in additional surface disturbance related to the revised and expanded rail loop, upgraded facilities to process and ship coal, and control and treatment of disturbed area runoff.

Other than the additional surface disturbance in the facilities area, no significant changes would be expected in hydrologic impacts to the mine plan area surface water system. These changes have been addressed by corresponding changes to the operational runoff and sediment control plan, and a more comprehensive facilities area reclamation plan.

The baseline surface water environment and anticipated hydrologic impacts for the overall mine plan area have been described and evaluated in the Environmental Assessment (MDEQ, 2006) and Written Findings for Application 00178 (MDEQ, 2007).

IMPACTS ON THE PHYSICAL ENVIRONMENT	
3. AIR QUALITY:	[Y] The air resource was addressed with the original EIS and subsequent environmental assessments. It was also addressed during the permitting process for Air Quality Permit 3179-02
4. VEGETATION COVER, QUANTITY AND QUALITY:	[Y] Vegetative communities would not be significantly affected by the proposed changes. Thirty additional acres of land will be disturbed with this revision. A reclamation plan for areas disturbed in conjunction with facilities development at the mine is part of the currently approved permit. The revised post-mining topography (PMT) and reclamation plan are consistent with the existing reclamation plan, although the PMT plan would need to be revised pursuant to a permit stipulation. No rare plants or vegetation communities are present within the proposed facilities area.
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:	[Y] The additional 30 acres, more or less, of surface disturbance would result from implementation of the proposed major revision. A variety of wildlife species use this habitat on a migratory, seasonal basis. A historical sharp-tailed grouse lek is located immediately south of the permit boundary, along the access road. Another lek has been observed southeast of Elbow Hill. Observations of sharp-tailed grouse during the annual wildlife monitoring indicate they are relatively uncommon on the mine site. Red-tailed hawks nest have historically nested in the vicinity of the facilities area and may be impacted during future nesting seasons.
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:	[Y] No threatened, endangered or sensitive plant species nor endangered animal species have been identified within the proposed major revision area. Twenty wildlife species of special concern have been observed in the wildlife monitoring area. These include the bald eagle (listed as a threatened species by USFWS), northern goshawk, Swainson's hawk, ferruginous hawk, long-billed curlew, Lewis's woodpecker, red-headed woodpecker, Cassin's kingbird, loggerhead shrike, Brewer's sparrow, lark bunting, grasshopper sparrow, chestnut-collared longspur, gray-crowned rosy finch, Townsend's big-eared bat, spotted bat, Great Plains toad, northern leopard frog, and sagebrush lizard. The majority of these species are considered transients or occasional visitors to the permit and proposed amendment areas. Three species (e.g. red-headed woodpecker, Cassin's kingbird and northern leopard frog) have been observed on a regular basis and should be considered residents. Three other species (Townsend's big-eared bat, spotted bat and sagebrush lizard) have been observed during regular surveys within the monitoring area; however, additional surveys are needed to better define whether or not they are residents of the area. The revised facilities area includes the current facilities area plus additional disturbance of native habitats. It is anticipated that impacts to sensitive species would be negligible.
7. HISTORICAL AND ARCHAEOLOGICAL SITES:	[N] The approved permit area cultural resource obligations involved a Class III (Intensive) archeological/cultural inventory on all of the proposed surface disturbance areas, plus literature search and rock art and standing-structure evaluation of the area overlying underground mining. This was initially completed in 1989, with supplemental intensive inventory of all known springs in 1992. Native American consultation (under AIRFA authority) was completed in 1993. More recently, portions of the rail spur were subjected to additional Class III inventories in 2002, due to a realignment of the line. The permit also includes a stipulation that steep-slope areas (>25%) be upgraded to Class III before starting longwall mining. No other impacts to known archeological or historical sites should occur from this major revision. Protection of any incidentally discovered sites is stipulated

IMPACTS ON THE PHYSICAL ENVIRONMENT	
	in the approved surface mining permit.
8. AESTHETICS:	[N]
9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:	[N] This project occurs in a rural setting. It will not use resources that are limited (except for removal of the coal resource).
10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES:	[N]

IMPACTS ON THE HUMAN POPULATION	
11. HUMAN HEALTH AND SAFETY:	[N]
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION:	[N]
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:	[N] Minor changes may occur as the result of the proposed major revision. The larger facilities would require additional time and labor to construct.
14. LOCAL AND STATE TAX BASE AND TAX REVENUES:	[N] A negligible change is anticipated.
15. DEMAND FOR GOVERNMENT SERVICES:	[N] It is not anticipated that the demand for government services would exceed that projected during the review and approval of the initial mine permit.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:	[N] None were identified.
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:	[N]
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:	[N]
19. SOCIAL STRUCTURES AND MORES:	[N]
20. CULTURAL UNIQUENESS AND DIVERSITY:	[N]
21. PRIVATE PROPERTY IMPACTS:	[N]
22. PRIVATE PROPERTY IMPACTS:	[N]
23. PRIVATE PROPERTY IMPACTS:	[Y] The Department has a level of discretion in its permitting decisions.
24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N]

25. Alternatives Considered:

No Action: Leave the facilities as currently approved.

Approval as proposed: Approval would allow realignment and expansion of the rail loop, expansion of the coal processing facilities and changes to the waste disposal area. The results would be an increased rate of coal production and improved handling of waste at the mine site. Building a rail loop would facilitate rail transport of coal to market.

Approval with modification: The major revision would be approved as proposed; however, two stipulations for future changes would be added to the permit. (1) A new Post-Mine Topography incorporating the 1.5 million yards (more or less) of fill material used to construct the rail loop would need to be submitted to and approved by the Department prior to construction of the rail loop. (2) The pre- and post-mine drainage profiles and cross sections must be submitted to the Department prior to construction of the mine facilities addressed by the major revision.

26. Public Involvement: Availability of this Environmental Assessment will be published in the *Billings Gazette.* The EA will also be available on the DEQ Internet site (http://deq.mt.gov/ea/coal.asp). Copies of the application are available for public review at the Bull Mountains Mine No.1 office, the Musselshell County Courthouse in Roundup, the Yellowstone County Courthouse in Billings, and at the DEQ offices in Helena and Billings.

27. Other Governmental Agencies with Jurisdiction: USDI, Bureau of Land Management manages the federal surface in T6N, R27E, N½ Section 32 ; Montana Department of Environmental Quality, Air Resources Management Bureau(air quality permit); Montana Department of Natural Resources and Conservation (water rights).

28. Magnitude and Significance of Potential Impacts: Impacts of the entire or other aspects of the operation were analyzed in the original EIS (MDSL, 1992) and the EA on the 2,172-acre amendment (MDEQ, 2006), respectively). There would be no impacts associated with this major revision that were not previously addressed in the EIS and EA.

29. Cumulative Effects: No other new activities have been identified in the area.

Recommendation for Further Environmental Analysis:

[ ] EIS [ ] More Detailed EA [X] No Further Analysis

EA Checklist Prepared By:

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References:

Hydrometrics, Inc., 2006. Madison Well #1 Pump Test Report, prepared for BMP Investments, Inc., June 2006.

Montana Department of Environmental Quality. 2006. Checklist Environmental Assessment for Bull Mountains Mine No. 1, Application 00178. November 2006

Montana Department of Environmental Quality. 2007. Written Findings for Bull Mountains Mine No. 1, Application 00178. January 2007.

Reviewed and Approved By: Neil Harrington, Chief
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